

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph [0002] with the following:

5 The invention relates to an image projection system, and more particularly, to an image projection system that is installed with an invisible-light reflector according to a predetermined angle and a predetermined position for heat dissipation.

10

Please replace paragraph [0004] with the following:

With the promotion of the electro-optic techniques, projecting devices are widely used in various applications.
15 Nowadays, the projecting devices include CRT projectors, LCD projectors, and DMD-based DLPs. In addition, LCOS projectors are expected future stars in the projecting industry. The basic operating principle of various projecting devices is the same: utilizing a high-luminance light source to emit a light beam
20 that then will be passed through some specific optical image modules, such as optical filter, to be projected on a screen with informative content. Generally, the optical power of the high-luminance light source will crucially affect the
projecting performance of the projecting device. In brief,
25 higher optical power of the high-luminance light source will lead to a better projecting performance of the projecting device.

30 Please replace paragraph [0006] with the following:

Design of the high-luminance light source will crucially affect the projecting performance of the projecting device.

In US Patent No. 6,281,620, "Lamp with IR reflectivity", Yeh et al. disclose a bulb that can be used to reflect infrared rays, and Yeh et al. also teach a method for increasing the luminance efficiency by focusing the reflected infrared rays on the lamp wick. In US Patent No. 6,398,367, "Light source device and projector using the light source device", Watanabe et al. teach that the light source 12 and the reflective housing 14 shown in Fig.1 can be detachably integrated. In addition, Watanabe et al. also provide a protection for the image projection system 10 with a transparent front glass at the opening of the reflective housing 14. Moreover, in US Patent No. 6,185,047, "Image projection system packaged to operate lying flat with a very low profile", Peterson et al. further install a color wheel 20 coated with an ultraviolet-rays-proof coating in the system shown in Fig.1 for filtering out the ultraviolet rays so that the ultraviolet rays will not damage the image module 16 and optical component 18 inside the image projection system 10. Designs similar to the above-mentioned structure can also be found in US Patent No. 6,299,310, "Luminous intensity detection and control system for slit lamps and slit lamp projections".

Please replace paragraph [0024] with the following:

The invisible-light reflector 38 is installed between the opening of the reflective housing 34 and the image module 36 and located at a reflecting position intersecting with the optical path outside the opening of the reflective housing 34. The invisible-light reflector 38 can be used to reflect the invisible light of the light beam emitted from the opening back into the accommodating space. As shown in Fig.2, when installing the invisible-light reflector 38, a normal N of

the invisible-light reflector 38 and the optical path p form a predetermined $[\text{angle } \theta]$ angle θ , and the predetermined angle is not equal to 0 degrees.

5 Please replace paragraph [0025] with the following:

One of the major characteristics of ~~he~~ the present invention is the installation of the invisible-light reflector 38. Due to the invisible-light reflector 38 being
10 installed at the reflecting position very close to the opening of the reflective housing 34, the light beam substantially propagating along the optical path will be blocked by the invisible-light reflector 38, and the invisible-light reflector 38 can reflect a great part of the invisible light
15 of the light beam back into the accommodating space formed by the reflective housing 34 for avoiding damage to the image module 36 in the image projection system 30 caused by the invisible light.

20 Please replace paragraph [0026] with the following:

Moreover, the invisible-light reflector 38 is installed tilted with respect to the optical path p by a specific angle.
Please continue to refer to Fig.2. The predetermined $[\text{angle } \theta]$ angle θ formed by the normal N of the invisible-light reflector 38 (the normal N is perpendicular to the invisible-light reflector 38) and the optical path p is an acute angle not equal to 0 degrees. When being practically implemented regarding the image projection system 30, the
25 acute $[\text{angle } \theta]$ angle θ can be designed to be less than 45 degrees.
30

Please replace paragraph [0027] with the following:

Please refer to Fig.3, which is a schematic diagram of an embodiment showing that the predetermined [[angle #]] angle
5 θ is equal to 0 degrees. The image projection system 30 further includes a light tube 40 connected to the light source 32. The reflective housing 34 shown in Fig.3 is an elliptic reflective housing (the formula of an ellipsoid can be described as follows: $y^2/b^2=x^2/a^2+K$), and the light source 32
10 is installed at a focal point of the elliptic reflective housing 34. As is well known, the optical property of the elliptic surface is that the light emitted from a focal point will focus on another focal point. Due to the invisible-light reflector being perpendicular to the optical path p and the
15 light tube 40 is close to another focal point at which the light source 32 is not located, the invisible light reflected (by the invisible-light reflector 38) back to the accommodating space will focus on the light tube 40 to probably damage the light tube 40. Furthermore, the invisible light
20 reflected back to the accommodating space may focus on the light source 32 after being reflected again by the elliptic reflective housing 34 to probably damage the light source 32.

Please replace paragraph [0028] with the following:

25

Please refer to Fig.4. As shown in Fig.4, the reflective housing 34 is an elliptic reflective housing (the formula of the ellipsoid can be described as follows: $y^2/b^2=x^2/a^2+K$), and the light source 32 is installed at a focal point of the
30 elliptic reflective housing 34. Please notice that, in the present embodiment, the predetermined [[angle #]] angle θ is an acute angle not equal to 0 degrees. Therefore, the invisible

light reflected (by the invisible-light reflector 38) back to the accommodating space would deviate from the optical path p and not focus on the light tube 40. In addition, by properly adjusting the predetermined $[\text{angle } \theta]$ angle θ , the infrared rays reflected (by the invisible-light reflector 38) back to accommodating space will not focus on the reflective housing 34. Please notice that the optical path p is a major axis of the elliptic reflective housing in mathematic definition.

10 Please replace paragraph [0031] with the following:

The invisible-light reflector 58 is located at a reflecting position R intersecting with the optical path p outside the opening of the reflective housing 54, and the normal N of the invisible-light reflector 58 and the optical path p form a predetermined $[\text{angle } \theta]$ angle θ not equal to 0 degrees. The invisible-light reflector 58 is still used to reflect the invisible light of the light beam emitted from the opening back into the accommodating space. As shown in Fig.5, the invisible light, after being reflected, will focus on a predetermined heat-dissipation position H away from the focal point for preventing damage to the light source 52 located at the focal point. In addition, the invisible light will not focus on the light tube 60. by properly adjusting the predetermined $[\text{angle } \theta]$ angle θ , the infrared rays reflected (by the invisible-light reflector 58) back to accommodating space will not focus on the reflective housing 54. Therefore, the light source 52, the light tube 60, and the reflective housing 54 can be well protected from the invisible light while the image module 56 is isolated from the infrared rays and ultraviolet rays, which are confined in the accommodating space.

Please replace paragraph [0033] with the following:

Fig.6 and Fig.7 clearly show the invisible-light reflector 78 is installed close to an opening of the reflective housing 74 tilted by a predetermined [[angle #]] angle θ not equal to 0 degrees. The invisible-light reflector 78 should be large enough to totally cover the opening of the reflective housing 74 to block the invisible light. Please notice that, when being practically implemented, the invisible-light reflector 78 may comprise glass coated with a plurality of coatings for efficiently reflecting the invisible light. Because the power of the light beam generated by the light source may be high enough to damage the invisible-light reflector 78 (the damage is mainly caused by the infrared rays), the plurality of coatings can be applied to one side of the glass which is most distant from the opening of the reflective housing 74.